

IV. AMENDMENTS TO THE CLAIMS

1. (CURRENTLY AMENDED) A sheet-material foreign-matter detecting method for detecting whether or not foreign-matter ~~different~~ different in reflectance from a sheet material having light reflectivity is attached to a surface of the sheet material while moving the sheet material in a predetermined direction, comprising the steps of:

applying light to a predetermined position of a moving route of the sheet material from a position having a predetermined angle from the surface of the sheet material;

picking up a light-source image reflected ~~to~~ from the surface of the sheet material by image-pickup means; and

judging a difference between brightnesses of the light-source reflected image due to a difference between reflectances of the sheet material and the foreign matter, wherein a light-source image reflected at a position shifted by a predetermined distance along the surface of the sheet material from a reflection position of the light extending along an optical axis of the light source is picked up.

2. (CANCELED).

3. (CURRENTLY AMENDED) A sheet-material foreign-matter detecting apparatus for detecting whether foreign matter different in reflectance from a sheet material having light reflectivity is attached to the surface of the sheet material while moving the sheet material in a predetermined direction, comprising:

a light source for applying light to a predetermined position of a moving route of the sheet material from a position having a predetermined angle from the surface of the sheet material;

an image pickup means picking up a light-source image reflected ~~to~~ from the surface of the sheet material; and

a judging means for judging a difference between brightnesses of a light-source reflected image due to a difference between reflectances of the sheet material and the foreign matter, wherein a pickup position of a light-source reflected

image on the sheet material is shifted by a predetermined distance along the surface of the sheet material from a reflection position of the light extending along the optical axis of the light source.

4. (CANCELED).

5. (CURRENTLY AMENDED) ~~The~~ A sheet-material foreign-matter detecting apparatus according to claim 3 for detecting whether foreign matter different in reflectance from a sheet material having light reflectivity is attached to the surface of the sheet material while moving the sheet material in a predetermined direction, comprising:

a light source for applying light to a predetermined position of a moving route of the sheet material from a position having a predetermined angle from the surface of the sheet material;

an image pickup means picking up a light-source image reflected from the surface of the sheet material; and

a judging means for judging a difference between brightnesses of a light-source reflected image due to a difference between reflectances of the sheet material and the foreign matter, wherein said judging means is configured by image processing means for image-processing the data picked up by image pickup means and detecting whether or not the brightness of a predetermined area of a processed image including a light-source reflected image becomes a predetermined value or less.

6. (CURRENTLY AMENDED) ~~The~~ A sheet-material foreign-matter detecting apparatus according to claim 4 for detecting whether foreign matter different in reflectance from a sheet material having light reflectivity is attached to the surface of the sheet material while moving the sheet material in a predetermined direction, comprising:

a light source for applying light to a predetermined position of a moving route of the sheet material from a position having a predetermined angle from the surface of the sheet material;

an image pickup means picking up a light-source image reflected from the surface of the sheet material; and

a judging means for judging a difference between brightnesses of a light-source reflected image due to a difference between reflectances of the sheet material and the foreign matter, wherein a pickup position of a light-source reflected image on the sheet material is shifted by a predetermined distance along the surface of the sheet material from a reflection position of the light extending along the optical axis of the light source and said judging means is configured by image processing means for image-processing the data picked up by image pickup means and detecting whether or not the brightness of a predetermined area of a processed image including a light-source reflected image becomes a predetermined value or less.

7. (NEW) A sheet-material foreign-matter detecting apparatus for detecting foreign matter on a surface of a sheet material being conveyed in a conveying direction, comprising:

a light source for applying light onto the conveying sheet material at a first position, the light extending along a light source optical axis of the light source oriented at a first acute angle relative to the surface of the sheet material in the conveying direction;

an image pickup means for detecting a reflected light reflected from the surface of the sheet material at a second position disposed upstream relative to the first position opposite the conveying direction, the image pickup means directed along an image pickup axis oriented at a second acute angle relative to the surface of the sheet material opposite the conveying direction, the second acute angle being different than the first acute angle; and

a judging means for judging a difference in brightness between a first position brightnesses of the reflected light reflected from the first position and a sheet

material brightness of the sheet material, wherein a judged difference in brightness indicates the presence of foreign matter on the surface of the sheet material.